REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
A	14-0095	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED NOTE.	7/28/2014	DPD	RW
1	15-0019	UPDATED TO NEW DRAFTING STANDARDS. ADDED NICKEL PLATE FINISH. ADDED WELD FIXTURE NOTE. **4.5NR-38A**, **4.5NR-38B**, **4.5NR-38C**, **4.5NR-38D1**, **4.5NR-38D2** CH'D MAT'L WAS 303 IS 1006-1026, CH'D DIM WAS (.094) IS (.090). **-38A** UPDATED DIMENSIONING.	1/22/2015	DPD	JAG
2	15-0082	CH'D FINISH REMOVED BAKE AFTER PLATING REQUIREMENT. **4.5NR-38A** CH'D DIM WAS (.090) IS .11. **4.5NR-38D1**, **4.5NR-38D2** CH'D DIMS WAS (.090) IS .11, WAS .45 IS .55, WAS 1.500 IS 1.600, WAS 1.038 IS 1.138.	5/12/2015	DPD	JAG

$1.875^{+.030}_{-.000}$

2X

2X

$.625^{+.030}_{-.000}$

.65

2X

4.5NR-38B

4.5NR-38C

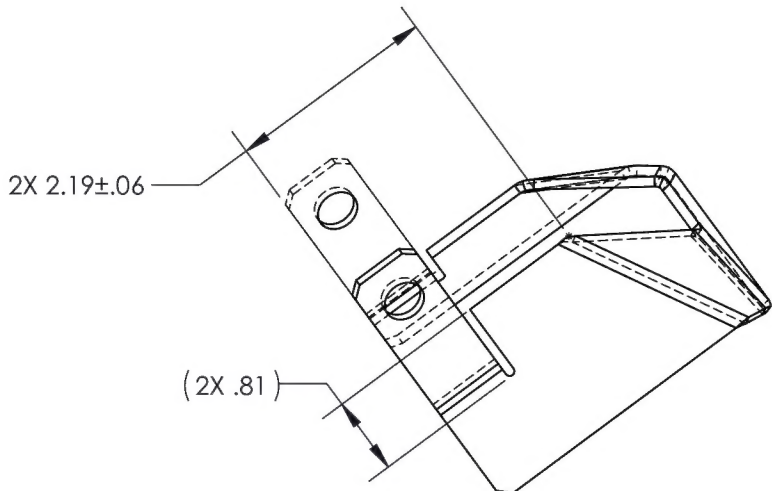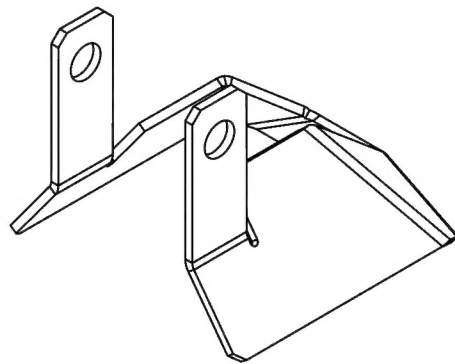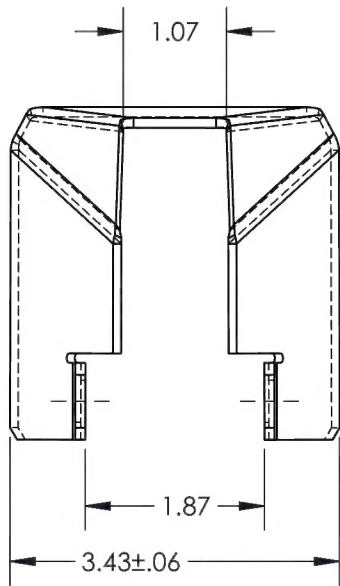4.5NR-38A

4.5NR-38D2

4.5NR-38D1

2X 1.30

2X 3.08

2X
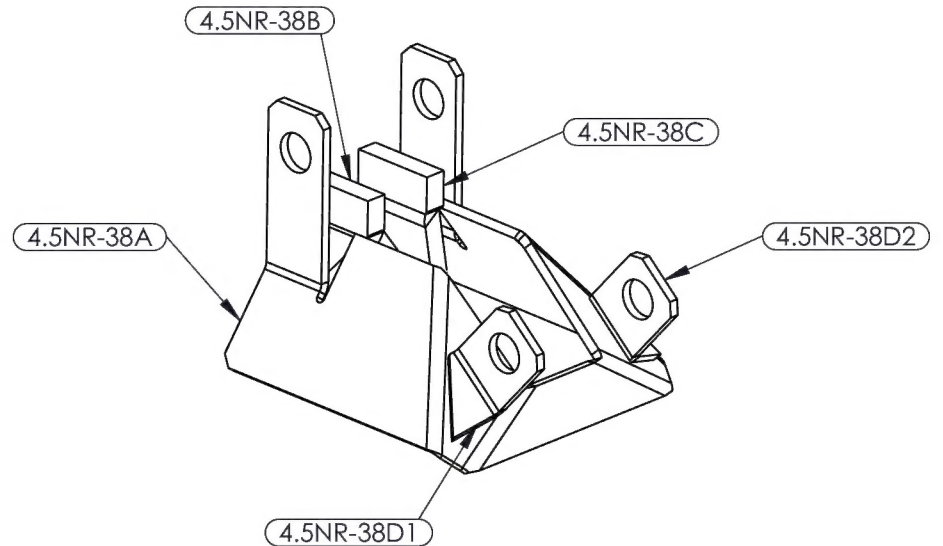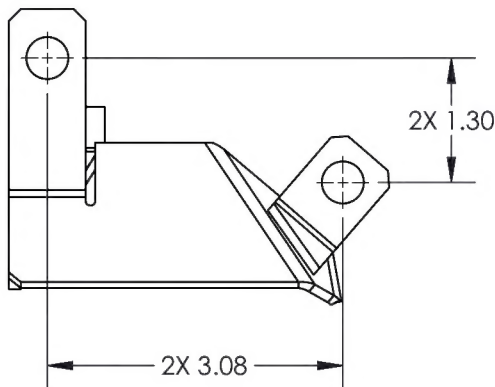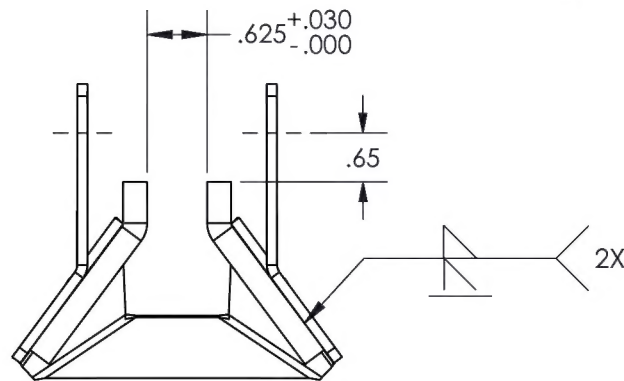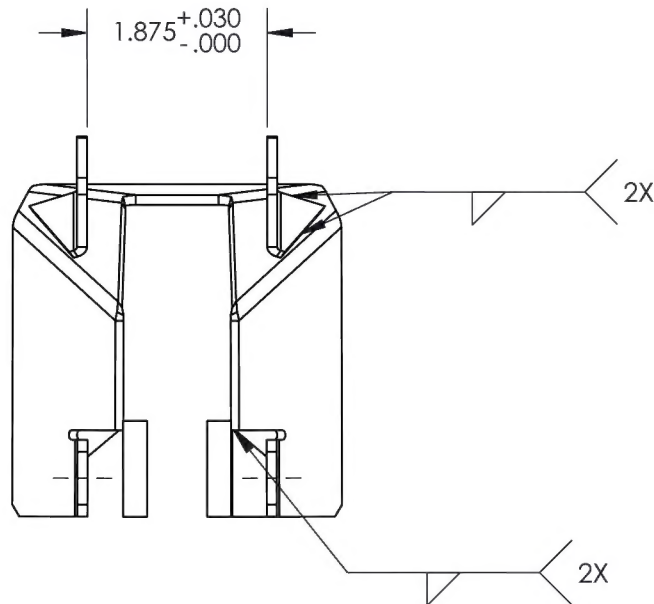
NOTES:
1. NICKEL PLATE .0004 - .0006.
2. USE WELD FIXTURE: 4.5NR-38-F
3. BAG & LABEL WITH BATCH NUMBER.

DART AEROSPACE

TITLE
FUNNEL SUB-ASSEMBLY

DWG NO. 4.5NR-38

REV 2

MAT'L

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
.XXX ± .010   FRACTIONS ± 1/8
.XX ± .03   ANGLES ±.5°
.X   ± .1
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

DRAWN BY: CANAM
APPROVED D Weil
HEAT TREAT
FINISH
SPEC
USED ON MODEL

SCALE 1:2   DATE 9/20/2001   SHEET 1 OF 6

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS	PG.
			4.5NR-38A	1	FUNNEL	1006-1026	(MCMASTER-CARR #6544K59)	2
			4.5NR-38B	1	ANGLE	1006-1026		3
			4.5NR-38C	1	ANGLE	1006-1026		4
			4.5NR-38D1	1	BRACKET	1006-1026	(MCMASTER-CARR #6544K59)	5
			4.5NR-38D2	1	BRACKET	1006-1026	(MCMASTER-CARR #6544K59)	6

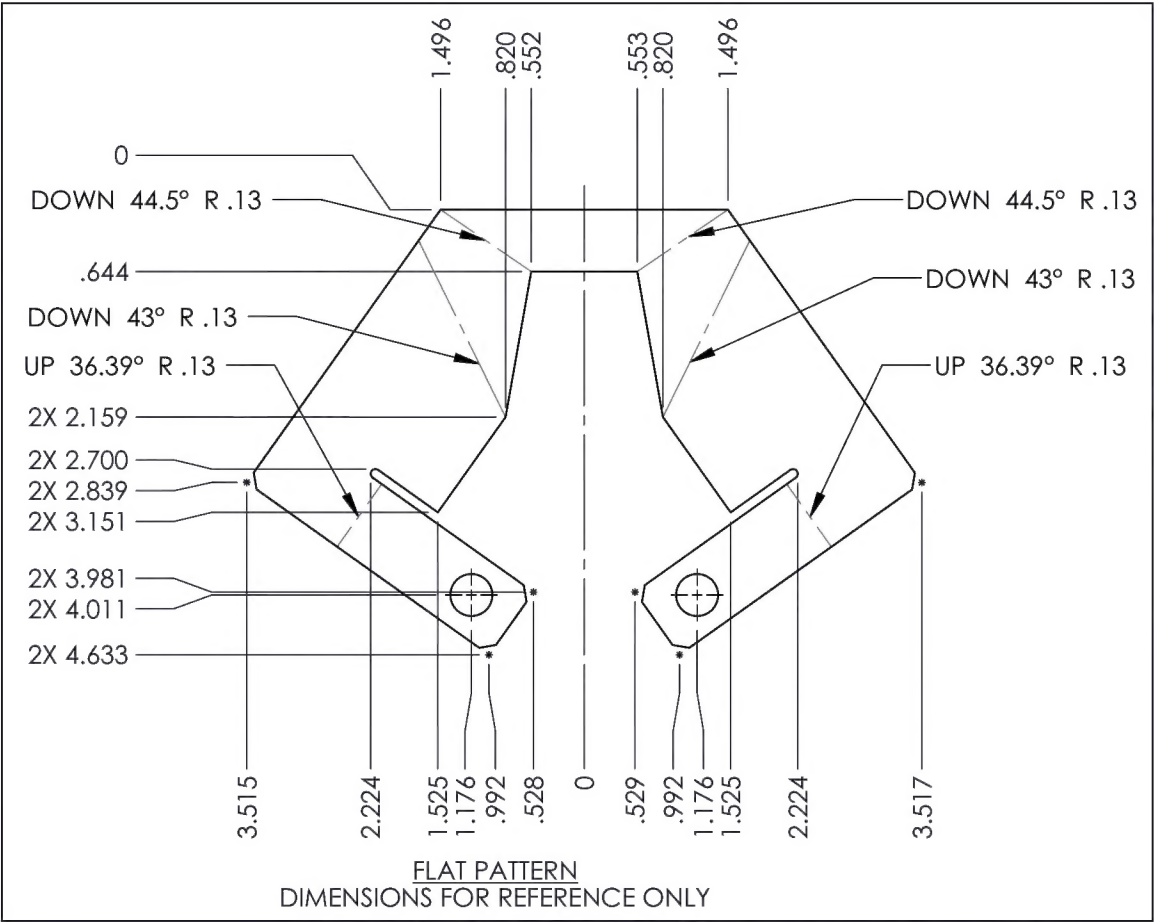| REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0019	**-38A** CH'D MAT'L WAS 303 IS 1006-1026. UPDATED DIMENSIONING.	1/22/2015	DPD	JAG
2	15-0082	**4.5NR-38A** CH'D DIM WAS (.090) IS .11.	5/12/2015	DPD	JAG

1.07

1.87

3.43±.06

2X 36°±2°

.11

2X 1.92

(.18)

A — A

VIEW A-A

2X 2.19±.06

(2X .81)

2X .80
2X .40
2X .10
6X .13 X 45°
2X Ø .44

2.90±.06

.88

40°±2°

40°±2°

3.06±.06

3.46±.06
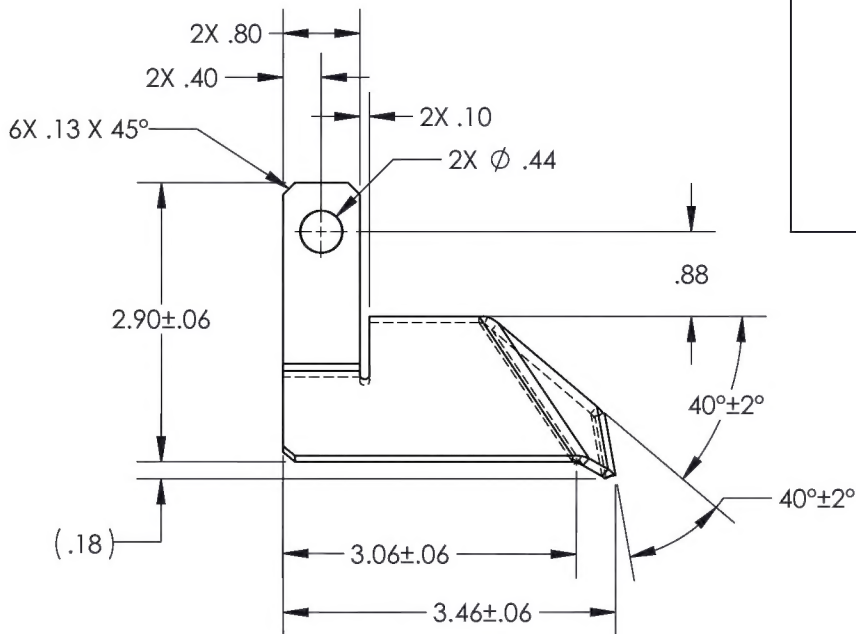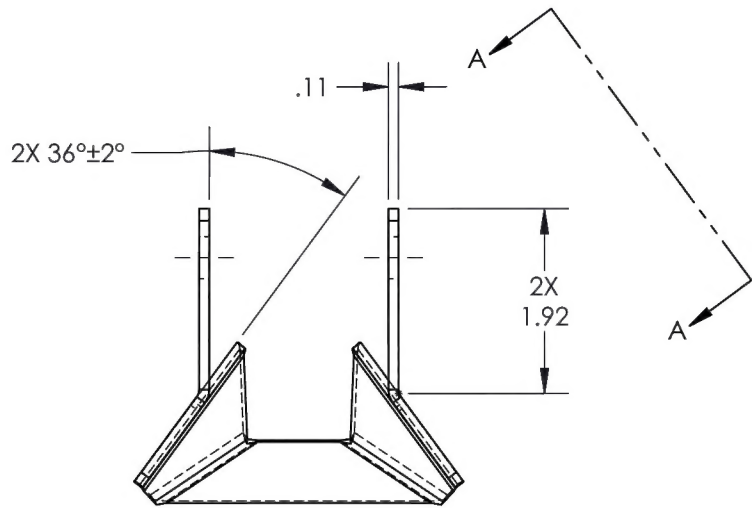
4.5NR-38A

FUNNEL

FLAT PATTERN
DIMENSIONS FOR REFERENCE ONLY

0
DOWN 44.5° R .13
.644
DOWN 43° R .13
UP 36.39° R .13
2X 2.159
2X 2.700
2X 2.839
2X 3.151
2X 3.981
2X 4.011
2X 4.633

DOWN 44.5° R .13
DOWN 43° R .13
UP 36.39° R .13

1.496 .820 .552   .553 .820 1.496

3.515 2.224 1.525 1.176 .992 .528 0 .529 .992 1.176 1.525 2.224 3.517

DART AEROSPACE

TITLE
FUNNEL SUB-ASSEMBLY

DWG NO.
4.5NR-38A

REV
2

MAT'L 1006-1026

DRAWN BY: CANAM
APPROVED D Weil

HEAT TREAT
FINISH
SPEC

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010   FRACTIONS ± 1/8
.XX ± .03   ANGLES ±.5°
.X ± .1

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

USED ON MODEL

SCALE 1:2
DATE 12/23/1997
SHEET 2 OF 6

27°

1.00

.12

37°

1.62

.25

.45

R.06

1.75

1.662
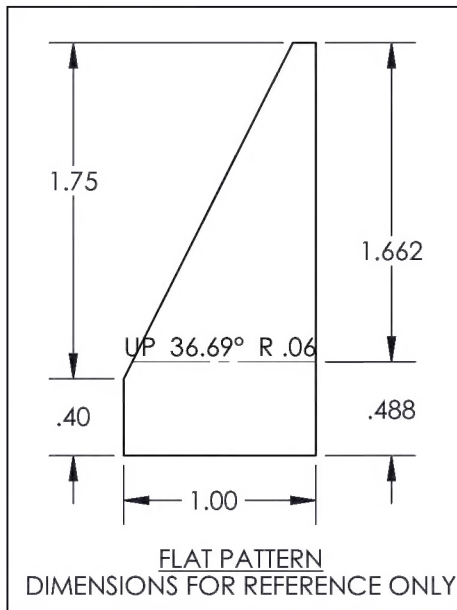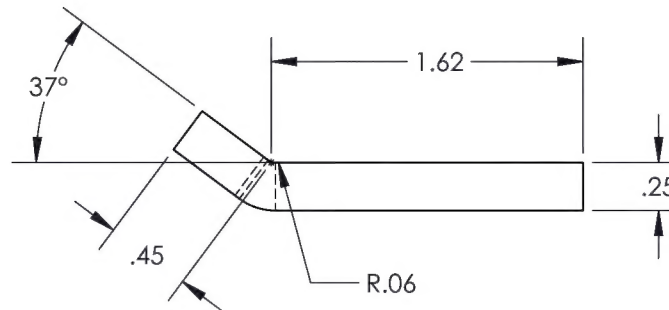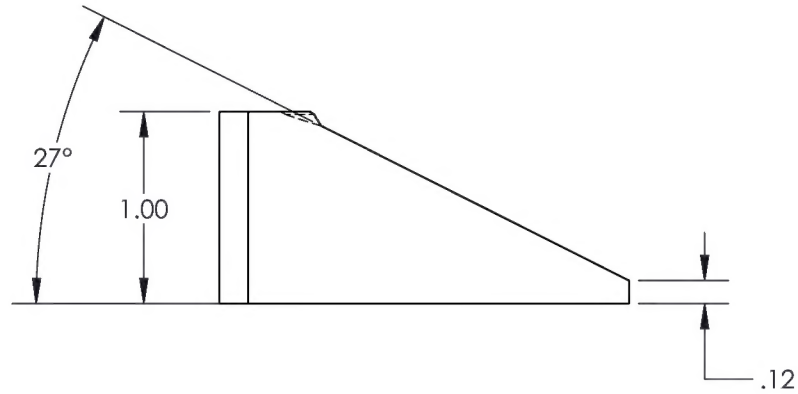
UP 36.69° R .06

.40

.488

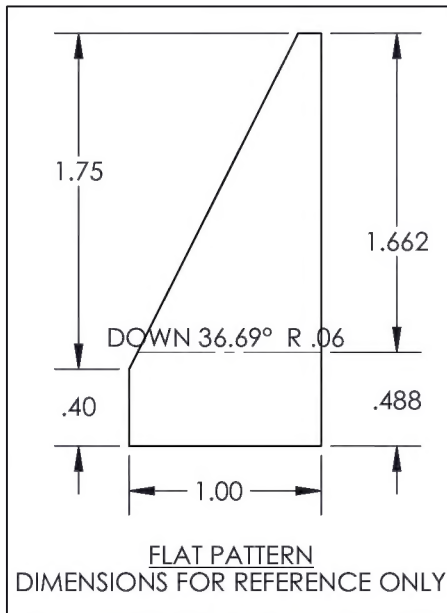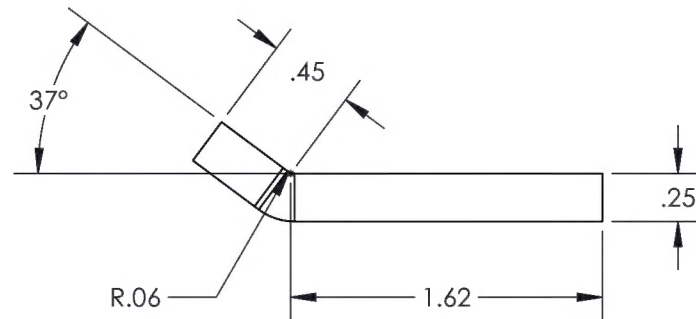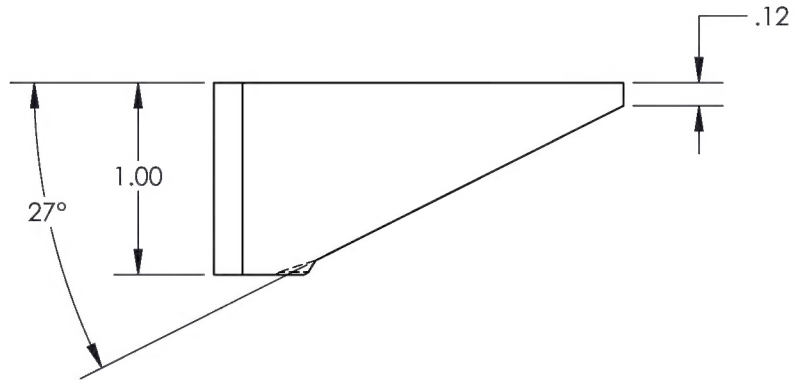1.00

FLAT PATTERN
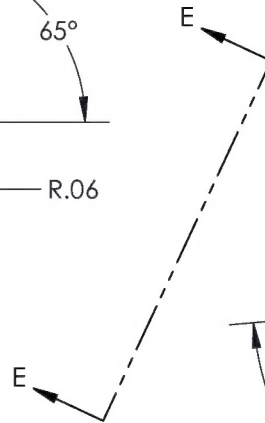DIMENSIONS FOR REFERENCE ONLY

4.5NR-38B

ANGLE

DART
AEROSPACE
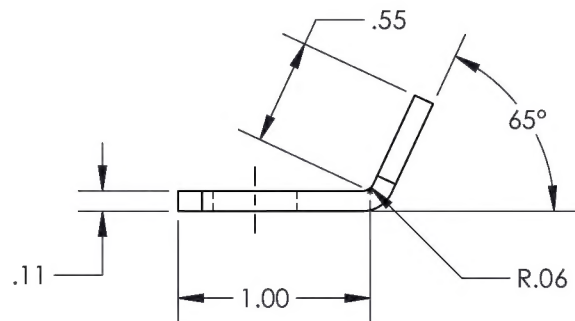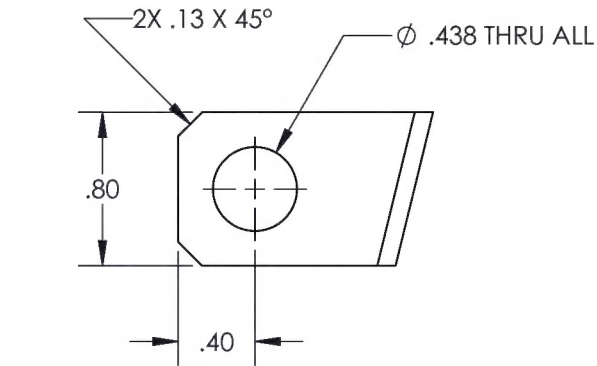
TITLE
FUNNEL SUB-ASSEMBLY

DWG NO.
4.5NR-38B

REV
2

MAT'L 1006-1026

DRAWN BY:
CANAM

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

.XXX ± .010
.XX ± .03
.X ± .1

FRACTIONS ± 1/8
ANGLES ±.5°

APPROVED
D Weil

HEAT
TREAT

FINISH

SPEC

1. BREAK ALL SHARP EDGES .015 x 45°
   OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER
   PLATING

USED ON MODEL

SCALE
1:1

DATE
12/23/1997

SHEET 3 OF 6

.12

1.00

27°

37°

.45

.25

R.06

1.62

FLAT PATTERN
DIMENSIONS FOR REFERENCE ONLY

1.75

1.662

DOWN 36.69° R .06

.40

.488

1.00

4.5NR-38C

ANGLE

DART
AEROSPACE

TITLE	FUNNEL SUB-ASSEMBLY		
DWG NO.	4.5NR-38C		REV 2
MAT'L 1006-1026		DRAWN BY: CANAM	

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010
.XX ± .03   FRACTIONS ± 1/8
.X ± .1   ANGLES ±.5°

APPROVED   *D Weil*
HEAT TREAT
FINISH
SPEC

1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

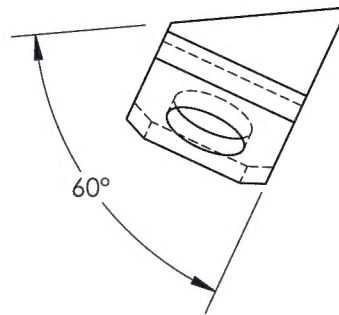USED ON MODEL

SCALE 1:1	DATE 12/23/1997	SHEET 4 OF 6

2X .13 X 45°   Ø .438 THRU ALL

.80

.40

.55

65°

E

.11

1.00   R.06

E

60°

VIEW E-E

4.5NR-38D1

BRACKET

1.600

1.025

.800

UP 65°   R.06

1.138

FLAT PATTERN
DIMENSIONS FOR REFERENCE ONLY

DART AEROSPACE

TITLE
FUNNEL SUB-ASSEMBLY

DWG NO. 4.5NR-38D1   REV **2**

MAT'L 1006-1026

DRAWN BY: CANAM

APPROVED D Weil

HEAT TREAT

FINISH

SPEC

USED ON MODEL

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
.XXX ± .010   FRACTIONS ± 1/8
.XX ± .03   ANGLES ±.5°
.X ± .1
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
2. DIMENSIONAL LIMITS APPLY AFTER PLATING

SCALE 1:1   DATE 12/23/1997   SHEET 5 OF 6

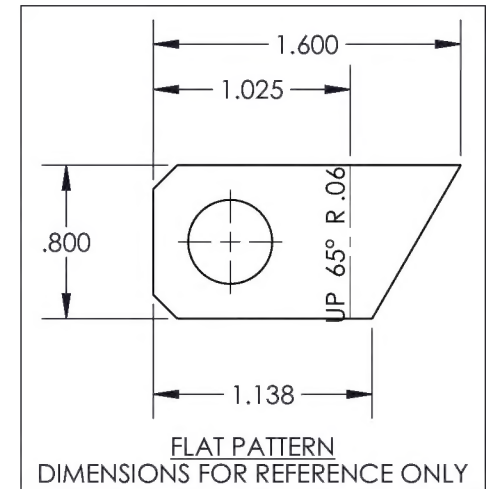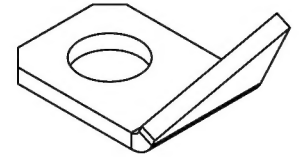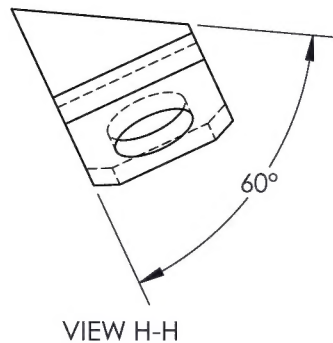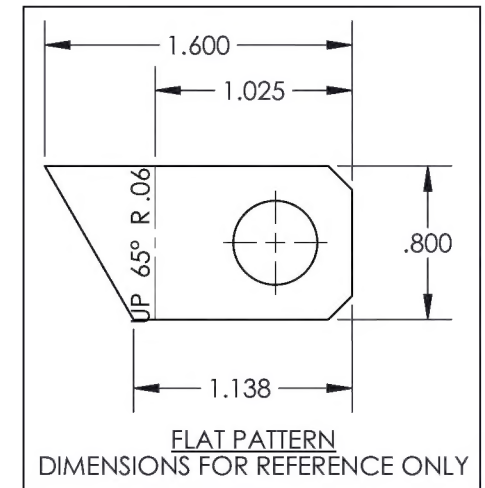| REVISIONS					
REV	ECR	DESCRIPTION	DATE	INITIAL	APPROVED
1	15-0019	**4.5NR-38D2** CH'D MAT'L WAS 303 IS 1006-1026. CH'D DIM WAS (.094) IS (.090).	1/22/2015	DPD	JAG
2	15-0082	**4.5NR-38D2** CH'D DIMS WAS (.090) IS .11, WAS .45 IS .55, WAS 1.500 IS 1.600, WAS 1.038 IS 1.138.	5/12/2015	DPD	JAG

2X .13 X 45°

∅ .438 THRU ALL

.80

.40

.55

65°

R.06

.11

1.00

H

H

VIEW H-H

60°

4.5NR-38D2

BRACKET

1.600

1.025

UP 65° R.06

.800

1.138

FLAT PATTERN
DIMENSIONS FOR REFERENCE ONLY
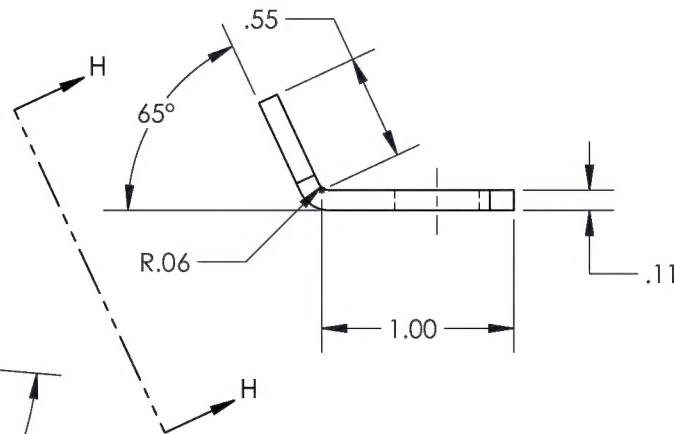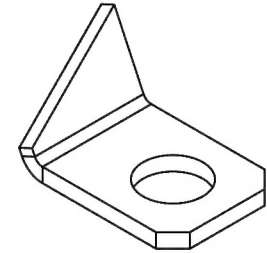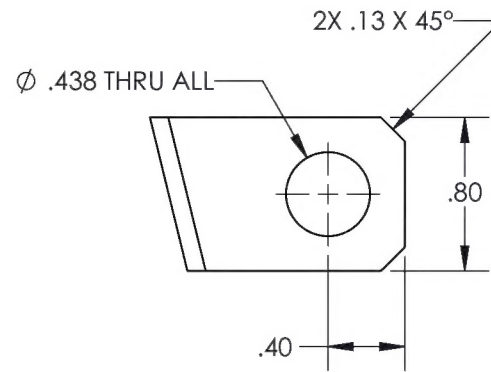
DART AEROSPACE

TITLE	FUNNEL SUB-ASSEMBLY		
DWG NO.	4.5NR-38D2		REV 2
MAT'L 1006-1026	DRAWN BY:	CANAM	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED	D Weil	
.XXX ± .010 FRACTIONS ± 1/8	HEAT TREAT		
.XX ± .03 ANGLES ±.5°	FINISH		
.X ± .1			
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	SPEC		
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	USED ON MODEL		
SCALE 1:1	DATE 12/23/1997	SHEET 6 OF 6	